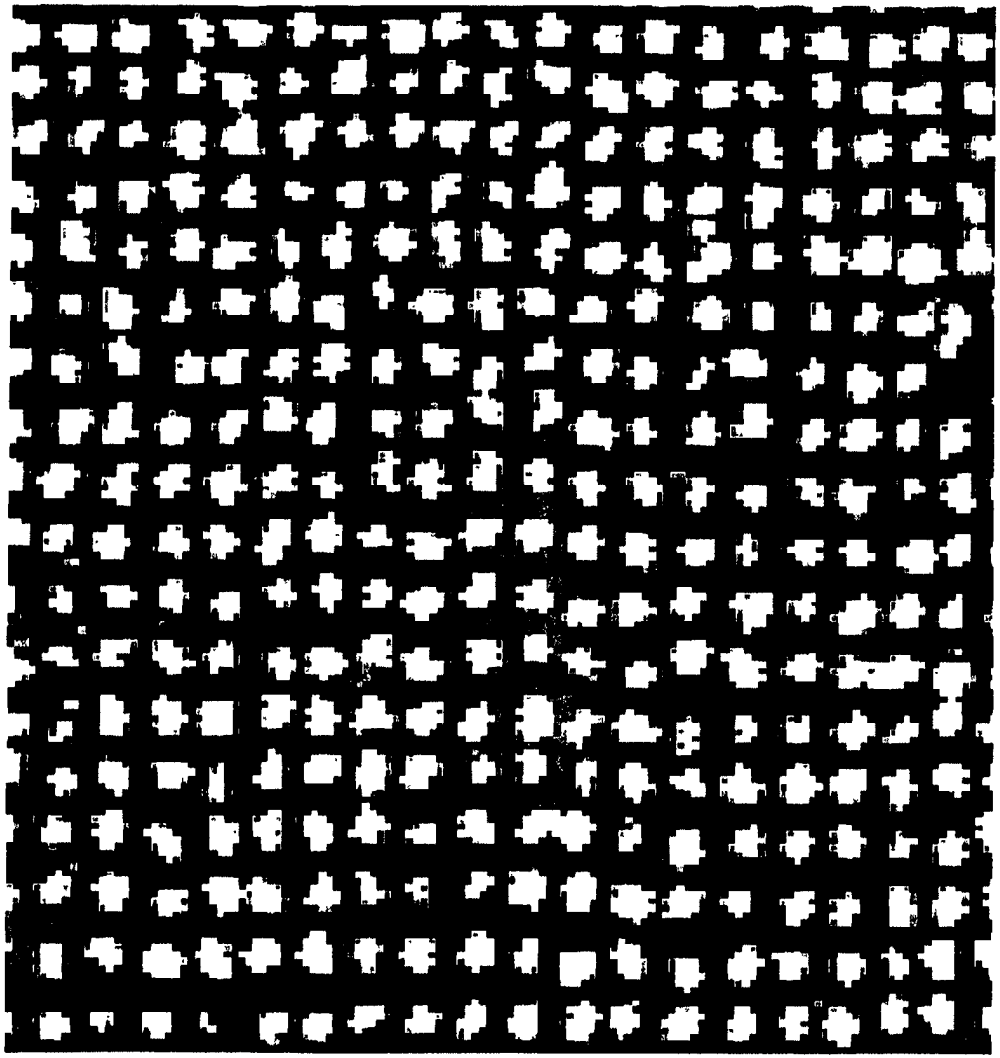
Figure 1



Close up view showing 342 features of a 55K (1X0.6 in) feature array of spotted dye.

Figure 2

A competitive hybridization between experimental target and control target labeled with two different colors. Note in this approach features are not detectable unless a hybridization event occurs.

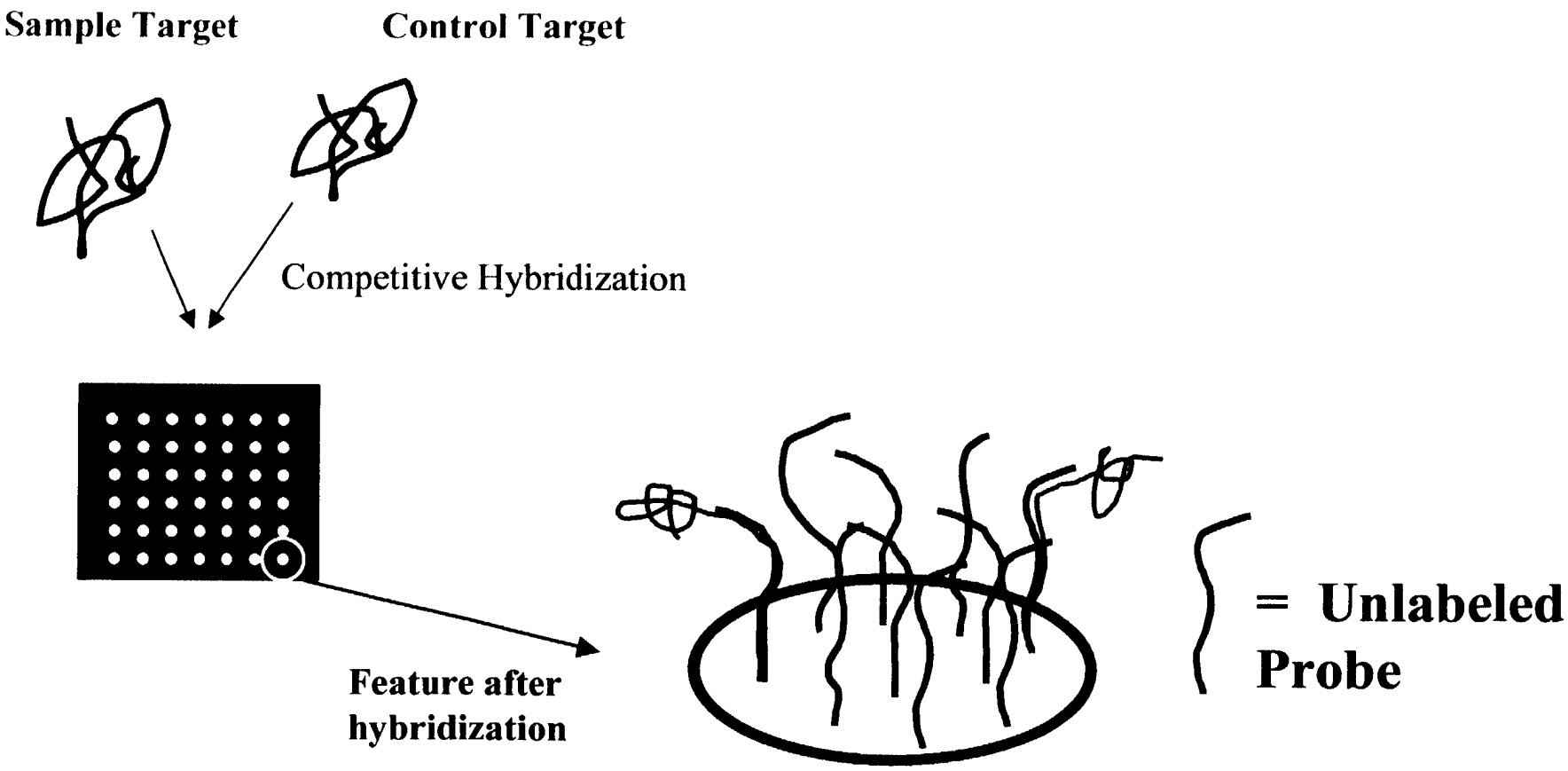


Figure 3

Put a third signal into each feature during manufacturing of the array. Use third signal for spot finding and quantitation. A competitive hybridization between biologically derived experimental and control targets labeled with two different colors is then performed.

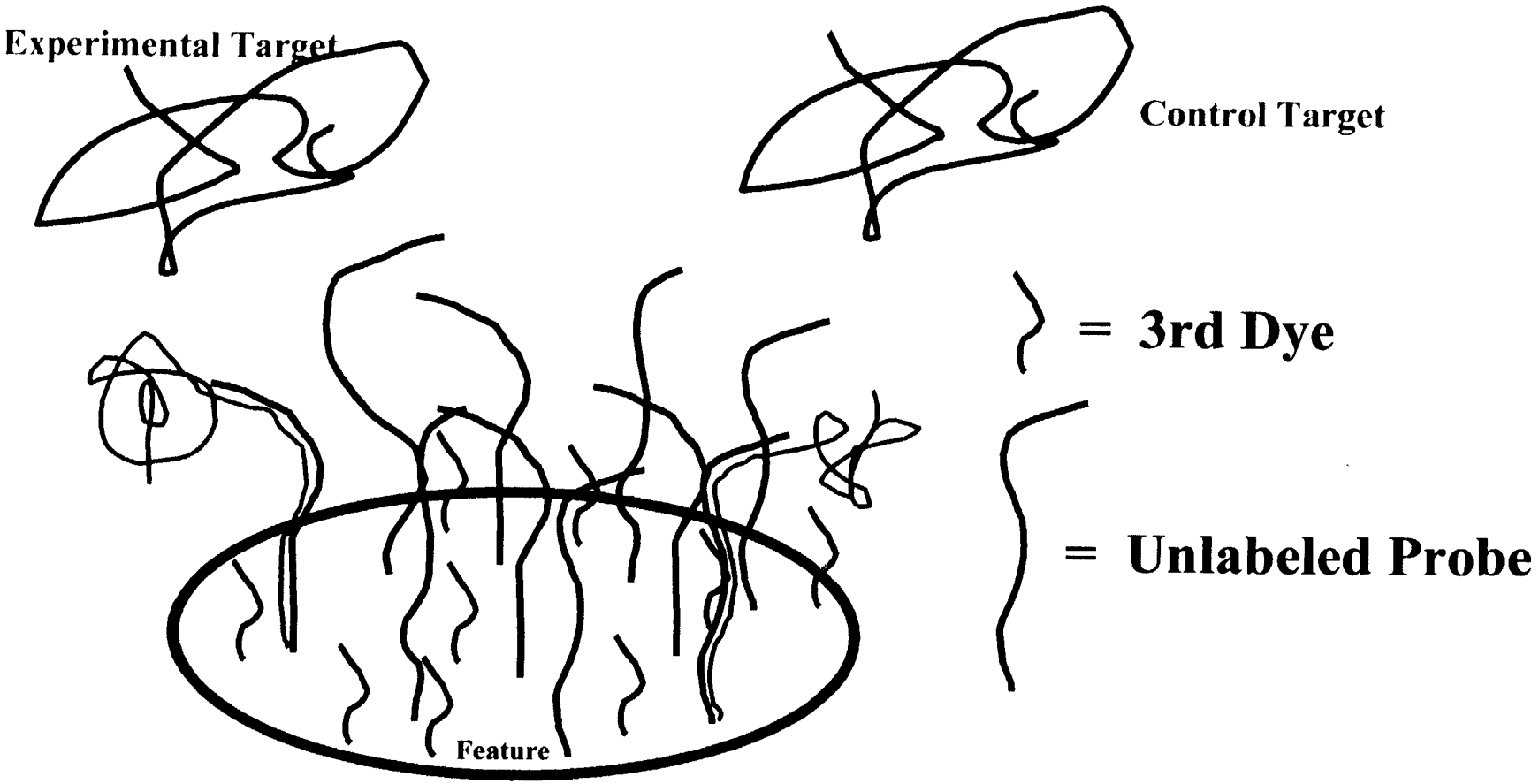


Figure 4

Deposit each feature without label. Perform non-competitive hybridization to array probes using a synthetic green-labeled control oligo and red-labeled cDNA samples. Requires a hybridization reagent containing a single green-labeled control oligo complementary to each feature on the array. Use green signal for spot finding and quantitation.

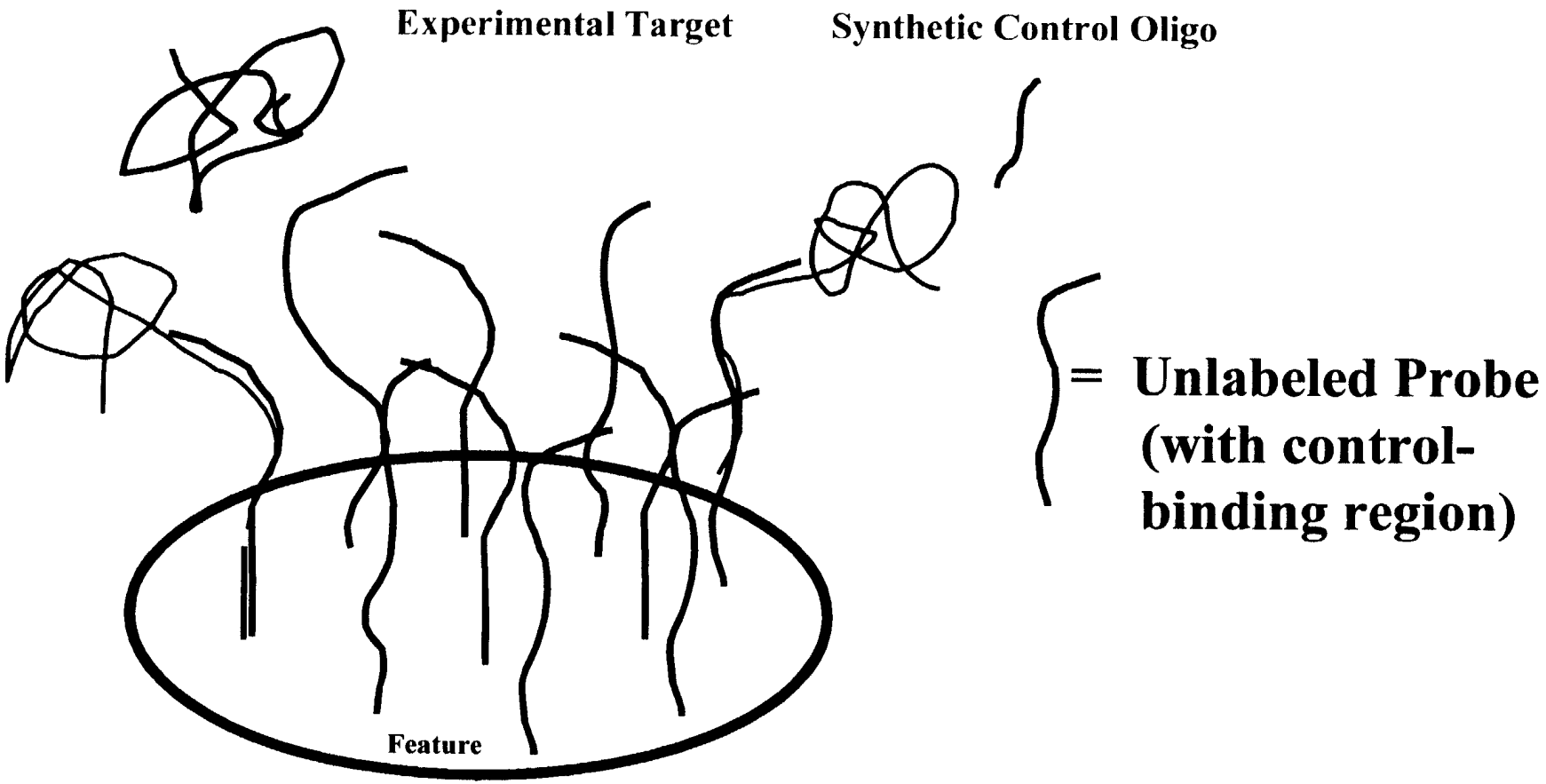


Figure 5

Put a label into each feature during manufacturing of the array. Label placed either directly on probe oligos or onto different co-spotted oligos. Use green dye for feature finding and quantitation. A gene expression assay would include a 1-color hybridization of red-labeled experimental target onto array. Use green signal to help better quantitate signal in red channel.